In the specification:

Kindly amend page 4, last paragraph as follows:

A preferred embodiment of the invention is shown in Fig. 4 (and an alternative embodiment in Fig. 5). It may be based on the system of Fig. 2, and for the sake of clarity, only one compression stage is shown. The device may comprise a low-voltage part formed by an energy source, such as a charger ~~V1~~(1' in the drawing), a storage capacitor C1 (2' in the drawing) and a fast high-current commutator S1 (3' in the drawing), such as a thyristor. The high-voltage part may be formed by a pulsed high-voltage transformer T1 (4' in the drawing) wound on a ferromagnetic core (5' in the drawing) having preferably a rectangular magnetization curve, two capacitors C2 (6' in the drawing), C3 (7' in the drawing), magnetic switch MS1 (8' in the drawing), load ~~Z1~~ (9' in the drawing) and a unidirectional semiconductor element, such as a freewheeling diode D (10' in the drawing). The device according to this invention functions similarly to that shown in Fig. 1, with an important exception, being that a low-impedance unidirectional path, such as through the freewheeling diode D, is provided for the charge of capacitor C3. This may be especially important in the case of a high-impedance load. The time delay of magnetic switch MS1 may be selected to be sufficiently large in order to enable diode D to recover after conduction. In practically important cases, as was shown experimentally, this condition is fulfilled automatically, and then the freewheeling diode D may be a simple standard fast-recovery diode. Remarkably stable unipolar pulses are generated at the output. This is illustrated by the waveforms of load voltage and current (Fig. ~~5~~6) in the case of the corona discharge load at similar experimental conditions as in Fig. 3, where no freewheeling diode was used. The diodes' forward current (seen as the negative swing in Fig. ~~5~~6) falls to zero during the C3 charge before the appearance of the reverse voltage even in the whole range of the compressor operation; hence, no appreciable diode reverse current flows, and as a consequence, standard inexpensive fast recovery diodes may be used.

Kindly amend page 5, last paragraph as follows:

Another preferred embodiment of high voltage magnetic compression modulator according to the invention is shown in Fig. ~~6~~7. Its only difference from the previous embodiment Fig. 4 is in the number of the compression stages. With several stages, higher voltage pulses with sharper rise are generated; otherwise, the device functions identically to device of Fig. 4. As magnetic switches, saturable transformers can be used.